

549,944

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
18 November 2004 (18.11.2004)

PCT

(10) International Publication Number
WO 2004/099369 A2

- (51) International Patent Classification⁷: C12N
- (21) International Application Number: PCT/US2004/013175
- (22) International Filing Date: 28 April 2004 (28.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/467,255 30 April 2003 (30.04.2003) US
- (71) Applicant (for all designated States except US): GENENCOR INTERNATIONAL, INC. [US/US]; 925 Page Mill Road, Palo Alto, CA 94304 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): JONES, Brian, E. [GB/NL]; Gravin Juliana van Stolberglaan 24, NL-2263VA Leidschendam (NL). GRANT, William, D. [GB/GB];
- 15 The Tithings, Kibworth Beauchamp Leicestershire LE8 OPU (GB). HEAPHY, Shaun [GB/GB]; 426 Uppingham Road, Leicester Leicestershire LE52DP (GB). GRANT, Susan [GB/GB]; 15 The Tithings, Kibworth Beauchamp Leicestershire LE8 OPU (GB).
- (74) Agent: BOYD, Victoria, L.; GENENCOR INTERNATIONAL, INC., 925 Page Mill Road, Palo Alto, CA 94304 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: NOVEL BACILLUS BAGCEL CELLULASE

ORF Nucleotide sequence of cellulase gene

ATGGGTTATA	CCAAAGCGAA	GTGTACGTTG	AAAAAACTG	TCTTGTTTGG	50
TTTAATTCTC	TGTTTAAGTG	TGTCAATGTT	TGTTCCAATG	ACATCAGCTG	100
AAGATGTCAC	TTCGTCACAG	TTGGATATTC	ACTCCTATGT	AGCTGACATG	150
CAGCCTGGCT	GGAAATTTAGG	AAATACGTTT	GACGCTGTTG	GAGATGATGA	200
AACAGCGTGG	GGGAATCCTC	GTGTAACAAG	AGAGTTAATA	AAAACGATTG	250
CTGATGAAGG	GTATAAAAGC	ATTCGTATCC	CAGTGACATG	GCAAAATCAA	300
ATGGGTGGTT	CTCCAGATTA	TACGATAAAT	GAAGATTATA	TCAATCGGGT	350
GGAGCAAGCG	ATAGATTGGG	CGTTGGAGGA	AGACTTATAT	GTGATGTTAA	400
ATGTGCATCA	TGACTCATGG	CTGTGGATGT	ATGATATGGA	ACATAACTAT	450
GATGAGGTCA	TGGCAAGATA	TACAGCTATT	TGGGAACAAT	TGTCGGAAAA	500
ATTCAAAAGC	CACCTCCATA	AGTTGATGTT	TGAGAGTGTC	AATGAGCCTA	550
GGTTTACGCA	GGAGTGCGGA	GAGATTCAAG	AAAATCATCA	TGCTTACTTA	600
GAAGATTTAA	ATAAGACGTT	CTATTATATT	GTCAGAGAGT	CAGGAGGCAA	650
TAATGTGGAG	CGCCCTTTAG	TATTGCCTAC	GATAGAAACA	GCCACGTCTC	700
AGGATTTACT	AGATCGCTTG	TATCAAACAA	TGGAAGACTT	GGATGATCCT	750
TATTTAATTG	CCACGGTGCA	TTATTATGGC	TTCTGGCCAT	TTAGTGTCAA	800
TATAGCAGGG	TACACTCATT	TTGAACAGGA	AACACAACAA	GATATTATAG	850
ACACCTTTGA	CCGTGTTTCA	AACACATTTA	CAGCGCGTGG	TGTCACGATT	900
GTATTAGCGG	AATTGCGTTT	GTTAGGCTTT	GACAAAAGTA	CGGATGTGAT	950
TCAGCAAGGG	GAGAAATTAA	AGTTTTTTGA	GTITCTCATC	CATCATCTCA	1000
ATGAACGTGA	TATAACCCAT	ATGTTATGGG	ATAACGGCCA	GCATTTAAAT	1050
CGAGAAACTT	ATGCATGGTA	TGATCAAGAA	TTTCATGACA	TATTAAGAGC	1100
GAGTTGGGAG	GGGCGTTCTG	CTACAGCAGA	GTCTAATTGG	ATTCATGTGA	1150
AGGACGGAAA	GCCAATTAGA	GATCAAGATA	TACAGCTTTA	CTTAAACGGA	1200
AATGAGCTAA	CAGCCTTACA	GGCAGGGGAG	GAATCGCTTG	TTCTAGGAGA	1250
GGATTATGAA	CTAGCAGGAG	GCGTATTAAAC	GCTAAAAGCG	GACACCTTCA	1300
CAAGACTAAT	TACCCTTGGT	CAATTAGGAA	CCAATGCAGT	CATCACAGCA	1350
CAATTTAATT	CTGGAGCAGA	CTGGCGTTT	CAATTACAGA	ATGTGGACGT	1400
GCCAACGGTC	GAATAACAG	ATGGCTCAAC	ATGGCATT	GCGATCCCTA	1450
CCCATTTTAA	TGGTGATAGT	CTTGCGACGA	TGGAAGCTGT	TTATGCAAAAC	1500
GGAGAAATATG	CTGGGCCGCA	AGATTGGACG	TCATTTAAAG	AATTTGGCGA	1550
GGCGTTTTCT	CCTAATTACG	CCACAGGGGA	AATTATTATA	TCAGAAGCCT	1600
TCTTTAACGC	GGTACGGGAT	GATGATATCC	ATTAAACATT	TCATTTTGTG	1650
AGCGGAGAGA	CGGTGGAATA	TACCTTACGT	AAAAATGGCA	ATTATGTTCA	1700
AGGTAGACGG	TAA				1713

(57) Abstract: The present invention provides a novel cellulase nucleic acid sequence, designated BagCel, and the corresponding BagCel amino acid sequence. The invention also provides expression vectors and host cells comprising a nucleic acid sequence encoding BagCel, recombinant BagCel proteins and methods for producing the same.

WO 2004/099369 A2



(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.